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09/870,202	05/30/2001	Senis Busayapongchai	BELL-0095/00409	7862

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EXAMINER
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WOZNIAK, JAMES S

ART UNIT	PAPER NUMBER
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2655

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DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/870,202

Applicant(s)

BUSAYAPONGCHAI ET AL.

Examiner

James S. Wozniak

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05/30/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05/30/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**Detailed Action**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 10** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "said second application" on Page 12, Line 7. There is insufficient antecedent basis for this limitation in the claim. The examiner has interpreted this limitation to refer to the "second subject application" associated with a "second subject area" as recited in Claim 2 for the application of prior art.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-9, 11, 12, and 14-20** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent: 5,812,977 to Douglas.

With respect to **Claim 1**, Douglas discloses:

A method of speech recognition processing that provides audible information over a communications device comprising *(user speech interface with a computer using a microphone as a communication means, Col. 5, Lines 52-60)*:

Receiving a first speech input indicative of a first subject area *(Fig. 3, Elements 76, 78, and 80)*;

Initiating a first subject application associated with said first subject area *(Fig. 3, Element 88) (subroutine initiation upon reception of a speech input, Col. 7, Lines 38-49)*;

Receiving a second speech input indicative of a second subject area *(ability to access more than one task subroutine interchangeably during a user session, Col. 9, Lines 43-44)*; and

Storing at least one indicator indicating a current processing step of said first subject application *(suspension of the present subroutine upon reception of a new task initiation command; "held in suspension" suggests a well-known means, to one of ordinary skill in the art, of storing the progress of the first subroutine so as to return to a particular point of progress when the second application has been terminated, Col. 9, Lines 51-56)*.

With respect to **Claim 2**, Douglas recites:

The method according to claim 1, further comprising initiating a second subject application associated with said second subject area *(example of a calculator subroutine (associated with the spoken command "calculator") initiated while a "reconcile bank account" subroutine is suspended, Col. 9, Lines 47-56)*.

With respect to **Claim 3**, Douglas discloses:

The method according to claim 1, further comprising initiating a task agent for said first subject application (*task association and initiation through vocabulary word recognition, Col. 5, Line 67- Col. 6, Line 12, and task implementation through the use of windows, Col. 8, Lines 60-65*).

With respect to **Claim 4**, Douglas recites:

The method according to claim 1, further comprising monitoring said first speech input for at least one word indicative of said second subject area (*recognition and initiation of a help subroutine at any time during task execution, Col. 7, Line 63-Col. 8, Line 8*).

With respect to **Claim 5**, Douglas recites:

The method according to claim 1, further comprising suspending said first subject application after receiving said second speech input (*Col. 9, Lines 51-56*).

With respect to **Claim 6**, Douglas discloses:

The method according to claim 5, further comprising: receiving a further speech input, and re-activating said first subject application responsive to the further speech input (*speech input of "end task" during the "calculator" application, which returns the system to the "reconcile bank account" subroutine, Col. 9, Lines 51-59*).

With respect to **Claim 7**, Douglas recites:

The method according to claim 1, wherein said storing at least one indicator further comprises storing a series of indicators that indicate a processing path of said first application (*use of a pointer, referring to the initial speech input, during the help subroutine such that the*

*system knows at all times of the task sequence, what specific computer instruction is being executed, Col. 8, Lines 2-9).*

With respect to **Claim 8**, Douglas discloses:

The method according to claim 7, further comprising outputting a computer-generated representation of said stored series of indicators that indicates said processing path of said first application (“pointer” discussed above and indicative of each particular step of the “create a memo” subroutine, is represented in the form of an output fax or printed document of the entire memo created by the process, Col. 8, Lines 27-37).

With respect to **Claim 9**, Douglas discloses:

The method according to claim 1, further comprising outputting information associated with said first application in a first voice (*synthesized or recorded voice response to task verification, Col. 6, Lines 33-37*).

With respect to **Claim 11**, Douglas recites:

The method according to claim 1, further comprising synthesizing speech for outputting speech from said first application (*synthesized voice response to task verification, Col. 6, Lines 33-37*).

With respect to **Claim 12**, Douglas discloses:

A speech recognition system comprising:

A speech recognition module that processes speech input and translates said speech input into computer-readable input (*conditioning circuit, Col. 5, Lines 54-58, Fig. 1, Element 22*);

A control manager comprising: a module that interfaces between said speech input and at least one of a plurality of application programs (*CPU, Col. 5, Line 63-Col. 6, Line 9, Fig. 1, Element 30*);

A module that initiates processing of a first application program (*CPU, Col. 6, Lines 6-9, Fig. 1, Element 30*);

A module that monitors said speech input for a request to initiate a second application program (*recognition unit, Col. 6, Lines 3-9, Fig. 1, Element 24, and above example of a calculator subroutine (associated with the spoken command "calculator") recognized by the recognition unit while a "reconcile bank account" subroutine is suspended, Col. 9, Lines 47-56*); and

A speech synthesizing module for providing output information from said plurality of application programs (*CPU, Fig.1, Element 30, Speaker, Fig. 1, Element 26, and synthesized voice response to task verification, Col. 6, Lines 33-37*).

With respect to **Claim 14**, Douglas recites:

The system according to claim 12, further comprising a plurality of task agents, each task agent associated with one of said plurality of application programs (*task association and initiation through the recognition of various vocabulary words, Col. 5, Line 67- Col. 6, Line 12, and task implementation through the use of windows, Col. 8, Lines 60-65*).

With respect to **Claim 15**, Douglas recites:

The system according to claim 14, wherein the control manager is adapted to assign said application programs to said task agents, and switch control among said task *agents (task*

*implementation through windows and vocabulary word association as applied to Claim 14 and the multiple system tasks listed in Table 1 and stored in the CPU, Col. 7, Lines 20-22).*

With respect to **Claim 16**, Douglas shows:

The system according to claim 12, wherein the request comprises a control word *(list of representative command words corresponding to subroutine initiation found in Table 1).*

With respect to **Claim 17**, Douglas discloses:

The system according to claim 12, wherein the control manager is adapted to suspend said first application program, and initiate processing of said second application program, responsive to the request *(Col. 9, Lines 51-56).*

With respect to **Claim 18**, Douglas recites:

The system according to claim 17, wherein the control manager is adapted to re-activate said first application program responsive to a further request *(speech input of "end task" during the "calculator" application, which returns the system to the "reconcile bank account" subroutine, Col. 9, Lines 51-59).*

With respect to **Claim 19**, Douglas discloses:

The system according to claim 12, wherein the control manager is adapted to store at least one indicator indicative of a current processing step of at least one of said plurality of application programs *(use of a pointer, referring to the initial speech input, during the help subroutine such that the system knows at all times of the task sequence, what specific computer instruction is being executed, Col. 8, Lines 2-9).*

With respect to **Claim 20**, Douglas suggests:



A computer-readable medium for storing computer-executable instructions for performing the method of claim 1 (*a voice control interface realized using a computer, Col. 5, Lines 49-52; and the well-known method, to one skilled in the art, of initiating a computer process through the use of a program held on a storage medium common to a personal computer, for example, a CD-ROM or floppy drive*).

Thus Douglas anticipates the invention as recited in Claims 1-9, 11, 12, and 14-20.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas.

With respect to **Claim 10**, Douglas suggests:

The method according to claim 9, further comprising outputting information associated with said second application, interpreted to mean the “second subject application” associated with a “second subject area” as recited in Claim 2, in a second voice, said second voice being distinguishable from said first voice (recorded voice that verifies commands in response to a system subroutine, Col. 6, Lines 30-37, and the ability of the user to specify reaction to system tasks, Col. 9, Line 66-Col. 10, Line 1, which implies an ability to select a recorded voice in association with a specific task response as a means of better identifying its function. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to assign a

specific voice, specified by user preference, with a task so as to offer an audible means of easily distinguishing between system tasks.).

7. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas in view of U.S. Patent: 6,208,972 to Grant et al.

Douglas teaches the voice control system as applied to Claims 1-12 and 14-20, but does not teach:

- A context table as recited in Claim 13

With respect to **Claim 13**, Grant discloses:

The system according to claim 12, further comprising a context table for maintaining a context for each of said plurality of application programs (*use of a process registration table to verify if a command is valid within a particular process, Col 8, Lines 14-16*).

Douglas and Grant are analogous art because they are from a similar field of endeavor in voice-controlled interfaces. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the use of a process registration table as taught by Grant with the voice command system featuring the ability to process multiple voice commands at once, associated with different applications as taught by Douglas to create a voice control system capable of ensuring that a voice command issued is valid at a particular process phase, thus lowering the likelihood of an input error. Therefore, it would have been obvious to combine Douglas with Grant for the benefit of obtaining a voice control system less likely to execute an improper command by maintaining a process registration table that verifies if a command is valid at a particular processing phase, to obtain the invention as specified in Claim 13.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

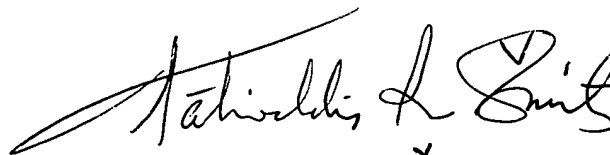
- U.S. Patent: 6,603,836 to Johnston- teaches an interactive voice response apparatus that features monitoring means for detecting a speech command, a “barge-in” technique that allows the user to interrupt a current process by issuing a speech command, and a synthesized voice output.
- U.S. Patent: 5,765,130 to Nguyen- discloses a speech recognition system utilizing a “barge-in” detector for user interruption of a system process.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (703) 305-8669. The examiner can normally be reached on Mondays-Fridays, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached at (703) 306-3011. The fax/phone number for the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 306-0377.

James S. Wozniak  
11/26/2003



TĀLIVALDIS IVARS ŠMITS  
PRIMARY EXAMINER